

(2)

Best Available Copy

AD-A 156 678



AIR COMMAND AND STAFF COLLEGE

20030115223

STUDENT REPORT

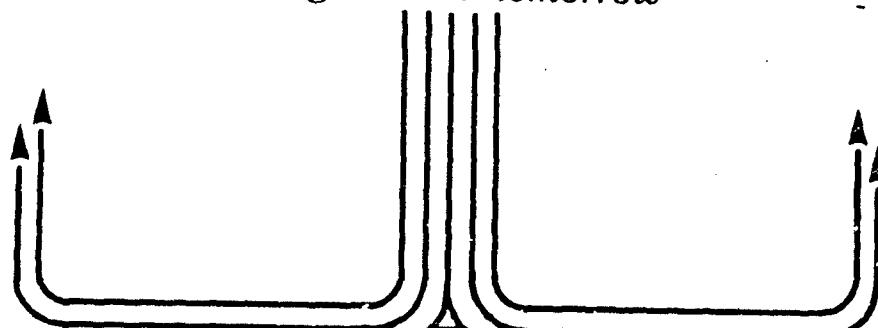
HAVE THE BASIC REQUIREMENTS OF ARMS
CONTROL CHANGED SINCE EFFORTS
WERE FIRST MADE?

MAJOR SHELDON D. STARKES 85-2600
"insights into tomorrow"



DTIC FILE COPY

This document has been approved
for public release and sale; its



85 07 08 032

DISCLAIMER

The views and conclusions expressed in this document are those of the author. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency of the United States Government. The author has not had special access to official information or ideas and has employed only open-source material available to any writer on this subject.

This document is the property of the United States Government. It is available for distribution to the general public. A loan copy of the document may be obtained from the Air University Interlibrary Loan Service (AUL/LDEX, Maxwell AFB, Alabama, 36112) or the Defense Technical Information Center. Request must include the author's name and complete title of the study.

This document may be reproduced for use in other research reports or educational pursuits contingent upon the following stipulations:

-- Reproduction rights do not extend to any copyrighted material that may be contained in the research report.

-- All reproduced copies must contain the following credit line: "Reprinted by permission of the Air Command and Staff College."

-- All reproduced copies must contain the name(s) of the report's author(s).

-- If format modification is necessary to better serve the user's needs, adjustments may be made to this report--this authorization does not extend to copyrighted information or material. The following statement must accompany the modified document: "Adapted from Air Command and Staff Research Report (number) entitled (title) by (author) ."

-- This notice must be included with any reproduced or adapted portions of this document.



REPORT NUMBER 85-2600

TITLE HAVE THE BASIC REQUIREMENTS OF ARMS CONTROL CHANGED
SINCE EFFORTS WERE FIRST MADE?

AUTHOR(S) MAJOR SHELDON D. STARKES, USAF

FACULTY ADVISOR MAJOR ROBERT H. LEWIS, ACSC/EDV

SPONSOR LT COL BERNARD D. CLAXTON, ACSC/EDCJ

Submitted to the faculty in partial fulfillment of
requirements for graduation.

**AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112**

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS										
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT										
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE												
4. PERFORMING ORGANIZATION REPORT NUMBER(S) DIA-1000		5. MONITORING ORGANIZATION REPORT NUMBER(S)										
6a. NAME OF PERFORMING ORGANIZATION ACSC/EDCC	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION										
6c. ADDRESS (City, State and ZIP Code) Maxwell AFB AL 36112		7b. ADDRESS (City, State and ZIP Code)										
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER										
8c. ADDRESS (City, State and ZIP Code)		10. SOURCE OF FUNDING NOS. <table border="1"><tr><td>PROGRAM ELEMENT NO.</td><td>PROJECT NO.</td><td>TASK NO.</td><td>WORK UNIT NO.</td></tr></table>		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT NO.					
PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT NO.									
11. TITLE (Include Security Classification) HAVE THE BASIC REQUIREMENTS OF ARMS												
12. PERSONAL AUTHOR(S) Blankens, Sheldon B., Major, USAF												
13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Yr, Mo, Day) 1985 April	15. PAGE COUNT 13									
16. SUPPLEMENTARY NOTATION <p>ITEM 11: CONTROL CHANGED SINCE EFFORTS WERE FIRST MADE?</p>												
17. COSATI CODES <table border="1"><tr><th>FIELD</th><th>GROUP</th><th>SUB. GR.</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>		FIELD	GROUP	SUB. GR.							18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB. GR.										
19. ABSTRACT (Continue on reverse if necessary and identify by block number) <p>This paper attempts to answer the question, "Have the basic requirements of arms control changed since efforts were first made?" It traces the evolution of arms control attempts from ancient times to the present, and examines some selected past attempts to prevent and control arms proliferation. Finally, the paper concludes with a suggestion about the prospects and potential fate of future arms control efforts.</p>												
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input checked="" type="checkbox"/> DTIC USERS <input type="checkbox"/>		21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED										
22a. NAME OF RESPONSIBLE INDIVIDUAL ACSC/EDCC Maxwell AFB AL 36112		22b. TELEPHONE NUMBER (Include Area Code) (205) 293-2483	22c. OFFICE SYMBOL									

PREFACE

The subject of disarmament and arms control has been on "center stage" of world politics for centuries. As weapon systems became more sophisticated and destructive, voices calling for their control and abolition got louder and more frequent. At varying degrees throughout history, men, particularly politicians, have wrestled with the problem of eliminating the need to build weapons, how to minimize the amount of weapons and, at the same time, maintain their sovereignty and security. Indeed, it is one of the most complex problems mankind has faced and will continue to face in the foreseeable future.

It would be nice if nations could strike a chord to guarantee their differences would not result in war. Short of this "utopian" world, however, they probably will continue to distrust each other, build arms (gravitate toward war) to ensure their survival. If history is a guide, they also will continue efforts to control world armaments - a dichotomy, indeed.

The purpose of this paper is to determine if the requirements for arms control have changed since efforts were first made. Additionally, it will trace the evolution of arms control attempts from ancient times to the present, and examine some selected past attempts to prevent and control arms proliferation. Finally, the paper concludes with a suggestion about the prospects and potential fate of future arms control.

I am grateful to Lt Col Bernard D. Claxton for sponsoring this project. He provided much needed guidance and assistance about sources of information to conduct the research. I have learned things about arms control that I probably would not have otherwise. Additionally, I am grateful to ACSC faculty members, Major David Evans (my first advisor) and Major Robert H. Lewis (who assumed the advisory responsibilities after Major Evans' reassignment to the Pentagon). Their advice and counsel were invaluable in completing this project.

Classification For	
NTIS GRA&I <input checked="" type="checkbox"/>	
DTIC <input type="checkbox"/>	
Approved <input type="checkbox"/>	
Declassification <input type="checkbox"/>	
By _____	
Distribution/	
Availability Codes	
Avail and/or	
Dist	Special

1

iii

ABOUT THE AUTHOR

Major Sheldon D. Starkes enlisted in the Air Force in April, 1969, and was assigned to Charleston AFB, South Carolina as an administrative specialist after completing basic training. In 1970, he was reassigned to Clark AB, Philippines where he worked as an administrative clerk in the 6200ABW commander's office. Following his tour at Clark, he was assigned to Craig AFB, Alabama until his appointment to Officer Training School in July, 1972. Major Starkes was commissioned in October, 1972, and assigned to Strategic Air Command as a drug/alcohol abuse control officer. He served in this capacity at several SAC installations, including Whiteman AFB, Barksdale AFB, and finally at Headquarters Strategic Air Command (Offutt AFB, Nebraska) as the Command drug/alcohol abuse control officer from September 1977 to July, 1981. In 1981, he retrained into the logistics management career field through the Education with Industry program at Lockheed-Georgia Company. His first assignment as a logistian was at Warner Robins Air Logistics Center, Robins AFB, Georgia where he was the Assistant C-141 System Program Manager until his attendance at Air Command and Staff College, Maxwell AFB, Alabama, Class of 1985.

Major Starkes holds a B.S. in Business Administration from Benedict College, Columbia, South Carolina and a M.A. in Administration and Management from Georgia College, Milledgeville, Georgia. His professional military education includes Squadron Officer School by correspondence and in residence, and Air Command and Staff by seminar.

TABLE OF CONTENTS

Preface -----	iii
About the Author -----	iv
CHAPTER ONE - INTRODUCTION -----	1
CHAPTER TWO - WHAT DO THE CONCEPTS "ARMS CONTROL" AND "DISARMAMENT" MEAN? -----	5
CHAPTER THREE PAST ATTEMPTS AT ARMS CONTROL -----	9
Ancient and Medieval Efforts -----	9
The Early Modern Period -----	11
The Period Between WW I and the End of WW II -----	13
The Nuclear Age: 1945 and Beyond -----	16
The Period of U.S. Monopoly and the Baruch Plan: 1945- 1948 -----	17
The Cold War: 1949-1953 -----	17
Serious and Hopeful Negotiations: 1953-1957 -----	18
Emphasis on General and Complete Disarmament: 1959- 1962 -----	19
Emphasis on the Partial and Attainable: 1962-Present -----	19
CHAPTER FOUR - WHY NATIONS SEEK ARMS CONTROL -----	23
The Objectives (Purpose) of Arms Control -----	23
The Security Objective -----	24
The Economic Objective -----	26
The Moral Objective -----	28
The Requirements of Arms Control -----	31
Trust -----	31
Balance of Forces -----	32
The Need for Verification -----	33
CHAPTER FIVE - CONCLUSION -----	35
BIBLIOGRAPHY -----	39

Chapter One

INTRODUCTION

Concern about the dangers of weapons is about as old as weapons themselves. For centuries, nations have had to deal with the threat weapons pose to their security. This concern can be traced all the way back to Biblical times. (6:v) One of the most renowned Hebrew prophets, Isaiah, openly expressed concern for the security of his nation, Judah. He was particularly concerned because Judah was small and weak compared to some of the great empires which existed at that time. One Biblical passage illustrates his feelings and suggestion to deal with the problem.

(4:1-2) He wrote:

And it shall come to pass in the last days, that the mountain of the Lord's house shall be established in the top of the mountains...And he shall judge among the nations, and shall rebuke many people: and they shall beat their swords into plowshares, and their spears into pruning hooks: Nation shall not lift up sword against nation, neither shall they learn war any more. (4:1-2)

This passage appears again in the book of Micah with the added words, "But they shall sit every man under his vine and under his fig tree; and none shall make them afraid." (4:1-2) As in most situations, however, there usually is an opposing point of view; this one is no exception.

A passage in the book of Job seems to take a different position on weaponry than that stated by Isaiah and Micah.

The author wrote:

Proclaim ye this among the Gentiles; prepare war, wake up the mighty men, let all the men of war draw near; let them come up: Beat your plowshares into swords, and your pruning hooks into spears.... (4:1-2)

From all indications, this position has been the unfortunate reality concerning world armaments. (4:1-2) However, as time went by, the invention of more complex and destructive weapons intensified proposals for their abolition and control.

America's "Founding Father," George Washington, got into the act. He believed that large military arsenals were ultimately detrimental to the well-being of a free and democratic society. (4:1-3) Even today, many people share similar beliefs on this subject. The invention of even more destructive weapons in recent history, particularly nuclear weapons, has only served to "add fuel to the fire."

Winston Churchill prophetically characterized the post-World War II world two decades before it emerged. He stated:

Mankind...has never been in this position before. Without having improved appreciably in virtue or enjoying wiser guidance, it has got into its hands for the first time the tools by which it can unfailingly accomplish its own extermination. That is the point in human destinies to which all the glories and toils of men have at last led them. They would do well to pause and ponder upon their new responsibilities.... (9:7)

Long since Churchill made this statement, concern about the need for nations to disarm has continued virtually unabated. After the United States exploded atomic bombs over Japan in 1945, the need for arms control was really brought home to the world.

The United Nations (UN) became the "hot bed" for nations'

attempts to deal with the problem. Although many individuals and nations question its track record, the UN is still an important forum for debating the arms control issue. (25:1) In 1978, for example, 77 non-aligned nations requested a meeting of the UN General Assembly to discuss the problem. These nations believed that

... partial disarmament will do no good; that what is needed is general and complete disarmament, the demilitarization of world society, and the reallocation of military expenditure from world armaments to world development. (14:9)

Interest in achieving arms control among non-aligned and third world nations continues to this day. So all nations, not just the superpowers, are concerned about this issue. (16:7A)

There are some obvious questions that could be raised at this point. For example, if man has felt for centuries that arms proliferation could ultimately result in destruction of the entire planet, then why can't he control them? If he is smart enough to develop them, then why isn't he smart enough to eliminate the need for them? Of course, there are many other pertinent questions which could be raised concerning this issue. However, they will not be dealt with directly because of the requirement to limit the scope of this paper. The objective of this study is to attempt to answer the question: Have the basic objectives of arms control changed since efforts were first made? Answering this question will shed some light on the questions raised above and many others not listed here.

The paper began with an introduction (Chapter One) which

presented a cursory overview of man's centuries-old concern about the need for arms control. Chapter Two defines two concepts--"arms control" and "disarmament" which are central themes in the paper, while Chapter Three discusses why nations seek arms control agreements. Chapter Four highlights some of the more significant arms control efforts. The chapter is divided into four distinct periods--the Ancient and Medieval Period, the Early Modern Period, the period between World War I and the end of World War II, and the Nuclear Age (1945 and beyond). Chapter Five, the conclusion, answers the question which is the subject of this study and provides the rationale for it.

Chapter Two

WHAT DO THE CONCEPTS "ARMS CONTROL" AND "DISARMAMENT" MEAN?

Mankind has toiled with the "art of definition" since the time of Aristotle, however, its utility and contribution to knowledge and understanding are still subjects of intense debate. (6:22) These arguments and reservations notwithstanding, most people obviously believe "definition" contributes to human understanding. This is particularly true when complex and volatile concepts such as arms control and disarmament are involved.

Depending on who's speaking, (i.e. an expert or layman), one can get quite confused about the meanings of these words. For example, do the advocates of either arms control or disarmament want total elimination of armaments, the elimination of certain types of armaments, or the establishment of certain quantities of armaments? Accordingly, then, what is the difference (if any) between arms control-- what the UN Charter calls "the regulation of armaments"-- and disarmament? Is it simply semantics? This chapter attempts to answer these questions and clarify other concerns about these two concepts.

Prior to World War II, disarmament was in vogue and, as a result, was the dominant term. During that time, it was perceived

as a "device" whereby nations would be compelled to reduce or regulate their armaments whether they liked it or not. Thus, the perceived meaning of the term was problematic in and of itself.

(15:1) The concept "arms control," on the other hand, gave nations a greater sense of control, not only of their armaments, but of their own destinies as well. Consequently, it gradually began to replace "disarmament" as the popular term for the process of regulating, reducing, or eliminating armaments. (4:v)

Prior to the Nuclear Age which began in the 1940's, the following definitions of arms control and disarmament were the generally accepted norms:

Arms Control: Restraint internationally exercised upon armaments policy, whether in respect of the level of armaments, their character, deployment or use.

Disarmament: The reduction or abolition of armaments. It may be unilateral or multilateral; general or local; comprehensive or partial; controlled or uncontrolled. (4:vii)

Still, a case can be made by those who believe these concepts are similar in some ways, but significantly different in others. These individuals assert that the differences are significant enough that the two concepts should retain their separate identities and should not be merged. (3:vii-viii)

Additionally, a school of thought exists among certain extremist groups which has lumped the concepts together. Essentially, these individuals assert that the arms control process was simply devised as a mechanism to disguise continuation of the arms race. (2:10) Although it is almost impossible to refute their argument with empirical evidence, all the concern and

emphasis this issue has received for centuries suggest their argument is tenuous at best. (2:18)

Two conclusions concerning these terms can be made at this point. First, disarmament (in the literal sense) seems to have been eliminated from serious consideration in contemporary debates concerning arms limitation, regulation or eradication. Instead, arms control appears to be the more realistic concept; presents a truer description of the efforts in this area and the general arms regulation process itself; and, consequently, is the dominant term today. Moreover, any notion that nations will completely disarm or even appreciably reduce their arms stockpiles is mere folly and should be abandoned. Second, the two concepts--arms control and disarmament--definitely have grown together over the years and now are generally viewed as synonymous. The World Book Encyclopedia proves this fact. It defines them as:

...reducing, limiting, controlling, or eliminating a nation's armed forces and weapons. There are three types of disarmament: (1) General and complete which permits only the retention of forces necessary to protect citizens and support United Nations peace forces, (2) Limited or partial which describes agreements between nations that apply only to one or more parts of their total armed forces and weapons, and (3) Regional which usually means limiting armed forces and weapons in a certain geographical area, such as demilitarized zones. (13:179)

For this reason and for the sake of continuity and convenience, the terms will be used more or less interchangeably throughout the remainder of this study.

Chapter Three

FAST ATTEMPTS AT ARMS CONTROL

The way to disarm is to disarm!
Arms control is the answer!
Ban the bomb! (4:iii-iv)

These and other slogans are vivid illustrations of the demands for arms control. As stated earlier the voices calling for the control of armaments have gotten louder and more frequent with the invention of each new generation of weapons. Yet progress toward achieving arms control has gone at a "snail's pace," and the prospects that this will change seem remote indeed. This dismal record did not evolve because mankind has not been sincere and diligent. On the contrary, the opposite seems to have been the case. Mankind has tried, but so far, simply has been unable to find a solution to this very complex and illusive problem.

This chapter provides brief summaries of some selected past attempts at arms control. It focuses on four periods-- Ancient and Medieval Period, the Early Modern Period, the period between World War I and the end of World War II, and the Nuclear Age--in which arms control efforts were recorded.

ANCIENT AND MEDIEVAL EFFORTS

During the Peloponnesian War, the Athenian playwright

Aristophanes produced three comedies, the Acharnians, Peace, and Lysistrata, in an effort to influence public opinion in support of a truce with Sparta. In Lysistrata, Aristophanes presents a most simplistic method to end the war. Amazingly, the wives of soldiers on both sides decided not to make love with their husbands as long as the fighting continued. It sure didn't take the warriors long to get the message! Amazingly, the plan succeeds, the war ends quickly and the chorus sings, "Let us call all the inhabitants of the skies to witness the noble peace now concluded under fond auspices of Aphrodite... dance, leap, as in honour of a victory won." (4:2) The moral of the play, of course, is that nature made man for more "pleasurable" purposes, not to fight among themselves. Further, it suggests that men either don't understand their mission on earth or they have simply chosen to ignore it.

In any case, despite these and other attempts to bring about disarmament through poetry, there actually were "real" attempts made during ancient times. One important agreement was made in 546 B.C. in Ho Nan Province, China. The agreement ended 72 years of warfare between the states of Tsin and Ts'in and pledged disarmament in the Yanztse Valley. (4:3) This is Tso K'iu-Ming's (Confucius' pupil) summary of the conference proceedings:

A statesman of Ho Nan, being of friendly terms with his colleagues of Shan Si and Hu Feh, conceived the idea of making a name for himself by proposing a cessation of armaments. He went first to Shan Si, and interviewed the Premier there; the Premier consulted his colleagues in the Shan Si ministry, and one of them said: 'War is ruinous to the people, and a fearful waste of wealth; it is the curse of the smaller Powers. Although the idea

will come to nothing, we must consent to it first, in order to gain favor with the Powers, and thus we shall lose the predominant position we now occupy.' So Shan Si consented.

Then [the narrative continues] Hu Peh was visited, . . . also consented. Then Shan Tung the German sphere now. Shan Tung did not like the idea; but one of the Shan Tung Ministers said: 'Shan Si and Hu Peh have agreed, and we have no help for it. Besides, the world will say that there would be a cessation of armaments were it not for our refusal, and thus our own people will vote against us. What is the use of that?' So Shang Tung consented. Next Shen Si was notified. Shen Si also consented. Then the whole four great Powers notified the minor States, and a great durbar of fourteen States was held at a minor court in Ho Nan. (4:3)

There were other less significant attempts at arms control during this period, but the total number is relatively small. Since the Disarmament Conference in China provides a good perspective about concerns for controlling arms at that time, we won't elaborate on any others. Instead, we will go directly to the Early Modern Period when nation-states began to emerge and armaments became more sophisticated and destructive.

THE EARLY MODERN PERIOD

The whole complexion of war changed during the 15th and 16th centuries with the birth of modern nation-states. Along with this event came concurrent changes in the attitudes and thinking of these nations' leaders. For example, large, well organized armies were raised to protect these states and new weapons were introduced into their war-making arsenals. Gun powder became a part of war and firearms replaced the bow and arrow. War was no longer "a noble occupation for noble men." (4:13)

With each passing century, the art of manufacturing firearms

was continually perfected. The result was bloodier and more devastating wars and, as one would expect, more frequent calls for peace.

Quaker leader and founder of Pennsylvania, William Penn, devised a plan which called for the establishment of a European Parliament to make rules for international behavior and to settle disputes between states. The plan dealt with disarmament indirectly in that it limited the size of armies to that which was only necessary for internal security. Armies which were large enough to threaten other states were prohibited. On this latter point, he says:

...the question may be asked by order of the sovereign states, why suc a one either raises or keeps up a formidable body of troops and to oblige him forthwith to reform or reduce them, lest anyone, by keeping up a great body of troops, should surprise a neighbor. (4:17)

Still, there was some disarmament by treaty in the Early Modern Period. One of particular interest--the Rush-Bagot Agreement between Britain and the United States--took place during the latter part of the period.

The Rush-Bagot Agreement: Mutual Disarmament of the Great Lakes.
April 28-29, 1817.

The Rush-Bagot agreement is a good example of an agreement that was reached because the two countries involved--the United States and Great Britain--could actually see its advantages. Although Britain had a superior navy overall, these forces were not concentrated in the Great Lakes area. In fact, Britain did not have enough ships at the time to muster a sizeable presence on

the lakes (although there were plans to do so eventually). On the other hand, the United States enjoyed a natural advantage over the British because the lakes were in its backyard. Additionally, neither country wanted to expend the money to control such a limited theater. This set the stage for the negotiations which eventually led to the agreement. (4:39)

The agreement, which only dealt with naval forces, was negotiated by United States Minister John Quincy Adams and British Foreign Secretary, Lord Castlereagh. It was a true disarmament agreement because it actually limited, reduced, and equalized the two naval forces. Coming on the heels of the bitter War of 1812, the Rush-Bagot Agreement was largely responsible for creating better relations, not only between the United States and Britain, but also between the United States and Canada. (4:39)

Again, the Early Modern Period marked the beginning of more intense concern about arms control. The work that was done during this period was the front-runner of efforts which took place later in history.

THE PERIOD BETWEEN WORLD WAR I AND THE END OF WORLD WAR II

World War I demonstrated the extreme devastation which could be unleashed by more destructive and powerful weapons. Weapons such as the rapid firing machine gun and high explosive artillery shells killed thousands of soldiers on all sides of the war. Introduction of the airplane and the tank provided clear indications of the nature of future wars. The airplane greatly

expanded the battle area and provided new flexibility for waging wars. As a result of these developments, some leaders, including President Woodrow Wilson and various European Socialists, wanted disarmament to be an integral part of any peace settlement. This, in part, led to the inclusion of disarmament in the League of Nations Covenant. (4:74-75)

Although calls for disarmament were strong and frequent after the war, there were opposing forces at work. Countries still wanted to protect their security. As a result many of them refused to disarm. By the mid 1930s, the expansionist and militaristic states such as Germany and Japan proved that these fears were well founded. In fact, the greatest disarmament effort between the two great wars, the World Disarmament Conference of 1932-1934, failed because of Japan's invasion of China, and France's refusal to abide by the conference proposals because she feared Hitler. The final "nail in the coffin" came when Germany withdrew from the Conference and the League of Nations. (4:76-77)

Surprisingly, the most significant disarmament efforts during this period did not involve land or air forces. Rather, they involved naval forces of Britain, the United States and Japan. Oddly enough, though, nations concentrated on naval treaties simply because they felt it was less complicated, and, therefore, chances for success were increased. Of all the attempts at naval disarmament, the Washington Conference on the Limitation of Naval Armaments produced one of the more significant agreements. (12:138)

The Washington Naval Treaty. February 6, 1922.

The Washington Naval Treaty (between Britain, the United States, Japan, Italy, and France) established a ratio for capital ships and aircraft carriers for these countries. It too, was a true disarmament agreement in that it called for battleships to be either destroyed or converted for peaceful purposes. Moreover, it represented the first negotiated arms control pact by major powers since the technological revolution began. (4:124-125)

However, there were some drawbacks to the agreement. For instance, it only dealt with capital ships and did not include the naval race involving big cruisers. Additionally, the United States agreed to limit the building of naval bases in the Pacific which limited its ability to protect its Pacific island possessions, e.g., Hawaii, etc. Despite these problems, the agreement is recognized as one of the more significant disarmament achievements at that time. (12:139-140) Another agreement deserves mention here largely because of its influence on future arms control efforts.

The Geneva Protocol on Chemical and Biological Warfare. June 17, 1925.

This treaty prohibited gas and bacteriological warfare. (8:66) Although the United States government helped negotiate the agreement, it never went into force because the United States Senate refused to ratify it. Consequently, as a treaty, it was relatively useless. However, because it dealt with specific types of weapons (i.e. gas and bacteriological weaponry) it provided a

model for future efforts to control nuclear weapons. (4:124-125)

Just prior to and during World War II, many World leaders' attitudes towards disarmament began to shift, particularly after atomic bombs were exploded. Apparently, they seemed to believe that "disarmament" simply was not possible and began to devise other means to maintain their nations' security. Collective security (alliances) became the primary method for deterring and repelling aggressor nations. In essence, aggressor nations, not the arms race, were viewed as the primary threat to world peace. The invention of nuclear weapons only served to solidify their thinking on this issue. (4:74)

THE NUCLEAR AGE: 1945 AND BEYOND

The creation of atomic weapons during World War II finally gave mankind the means to completely destroy itself. The level of fear among all people of the world steadily increased with each new technological improvement to these weapons. There is certainly no doubt that the accuracy, potential destructiveness, and availability of nuclear weapons have also increased immensely during the past few decades. Therefore, it became painfully clear that disarmament efforts needed to be given urgent priority. (4:291)

From the mid 1940's up to 1949, the United States enjoyed a monopoly on atomic weapons. In 1949, the Soviet Union had acquired the "bomb." These developments set the stage for United States-Soviet relations from that day to the present. Relations between the two countries have gone through various stages ranging

from extremely poor to relatively cordial. Following is a brief summary of each of those stages.

The Period of United States Monopoly and the Baruch Plan: 1945-1949.

Shortly after the end of World War II, United States Representative Bernard Baruch presented a plan for prohibiting production of atomic bombs and placing peaceful uses of atomic energy (electrical power production) under an international authority. After the agreement was implemented, nations who produced atomic weapons would be punished. The Soviet Union resisted it from the outset because they believed it was slanted against them. (8:73-75)

However, the Soviets did not totally reject it. Their representative, Andrei Gromyko, presented a similar proposal but with one stipulation--all United States weapons had to be destroyed as soon as the agreement was implemented. However, he knew their proposal would be unacceptable to the United States. It was later discovered that the Soviets never intended to agree to the Baruch Plan, and were simply buying time to complete development of their own atomic weapon. (8:75-76) This put a "damper" on United States-Soviet relations and marked the beginning of the "Cold War."

The Cold War: 1949-1953.

The Cold War was a period of high tension between the two "atomic powers." Soviet development of the "bomb" was only one of the reasons for the Cold War. The other reason was the

Soviets' continued aggressive hold on the Eastern European countries it occupied after World War II. To halt Soviet expansion, the North Atlantic Treaty Organization was formed in 1949. The Soviets countered by establishing the Warsaw Pact in 1955. Now, both countries headed their respective military blocs.

(4:292-293)

During this period, the two nations had little contact. Cultural and political contacts were virtually suspended; the same was true for arms control talks. However, in 1953 tensions began to ease.

Serious and Hopeful Negotiations: 1953-1957.

Essentially three events were responsible for the easing of tensions between the United States and the Soviet Union--the death of Stalin in 1953, the development of thermonuclear weapons, and the Soviets' achievement of nuclear parity with the United States. Moreover, both countries had developed the hydrogen bomb by 1953. (4:293) So the situation was right for resuming contact, including arms control efforts.

By this time, however, there were so many nuclear weapons around that it was virtually impossible to find and destroy them. Consequently, the United States began working feverishly for arms control. A cabinet-level arms control negotiator was appointed by President Eisenhower to give status to the talks and demonstrate United States resolve on the matter. The Soviet response was total rejection of these efforts because they thought the United States was trying to regain a nuclear advantage. (4:293-294)

Thus, arms control efforts were terminated and did not resume on a serious basis, until 1959.

Emphasis on General and Complete Disarmament: 1959-1962.

In 1959, the Soviet Union became the first nation since World War II to propose general and complete disarmament. However, the United States viewed the proposal with suspicion and dismissed it as propaganda. Still, it was a significant event because it created an atmosphere for some minor agreements. One example is the 1959 landmark treaty which prohibited nuclear tests in Antarctica. (4:295)

Other significant events occurred which dramatized the need for serious arms control efforts. The Berlin and Cuban Missile Crises are probably the most renowned. Overall, this period set the tone for what eventually became the cornerstone of United States-Soviet arms control efforts after 1962. After 1962, the emphasis was on the partial and attainable. (4:295)

Emphasis on the Partial and Attainable: 1962 to Present.

The theme of this period seems to be: we can't reach any major agreements so let's try for some minor ones. Accordingly, the "hotline" between the United States and the Soviet Union was established in 1963; another 1963 treaty limited nuclear testing to areas underground, and a treaty prohibiting weapons in space was signed in 1967. These are but a few of the treaties which were made during this period. Although they have not received much attention, they are important (4:296) If nothing else, they are proof that the arms control movement has continued to thrive,

despite some formidable obstacles, e.g. the Russian invasions of both Czechoslovakia and Afghanistan, and the Vietnam War.

Development of anti-ballistic missiles in the 1960's again prompted serious arms control discussions. The result was the Strategic Arms Limitation Talks (SALT). The May, 1972, SALT agreement (SALT I) between the United States and the Soviet Union prohibited the use of anti-ballistic missiles (ABM) except to protect each nation's capital city, and one intercontinental ballistic missile (ICBM) area. In the United States, Grand Forks Air Force Base was selected as the ICBM area protected under this treaty. (4:603) A follow-up SALT agreement (SALT II) was reached between the two countries, but it was never ratified by the United States Senate.

Until the election of President Ronald Reagan in 1980, the SALT agreement was generally viewed as an effective nuclear arms control pact. However, the Reagan administration believes the Soviets used it to gain military superiority over the United States and declared it obsolete. (18:2) Consequently, President Reagan proposed a new beginning for arms control talks with the Soviet Union.

In June, 1982, the President proposed the Strategic Arms Reduction Talks (START). START's primary goal (which the administration wanted to be totally different from SALT) was to actually reduce nuclear armaments as opposed to merely limiting them. However, START got off to a "rocky start." Shortly after the talks began, the Soviets walked out in protest over the United

States' deployment of Pershing missiles in Western Europe. So far, the talks have not resumed. (11:3-4)

This was an interesting period to say the least. It was highlighted by events which brought the world as close as it has ever come to nuclear war and possible annihilation. Without question, the events of this period underscored the need for nations to continue to seek ways to peacefully coexist.

Chapter Four

WHY NATIONS SEEK ARMS CONTROL

Throughout this paper, there are hints about why nations have always sought arms control and, at the same time, continued to build arms. It seems the only important concern relative to arms control is how it may be achieved; nothing else seems to matter. In my view, this is only half of the equation. Any comprehensive and meaningful discussion of arms control must also attempt to bring about a clear understanding of its purpose.

Accordingly, this chapter focuses on the objectives (reasons arms control is desirable); and the requirements (generally accepted principles) which are essential for successful arms control.

THE OBJECTIVES OF ARMS CONTROL

For centuries, world leaders have been warned about the increasing use of arms, and alliances to maintain their security. At the same time, it was recognized that every nation has an inherent right to survive and protect its legitimate interests, through whatever means. It was also recognized that in protecting their interests, nations must do so within the confines of international law. Accordingly, war should only be undertaken as a last resort and with full consideration of the costs across the entire spectrum, i.e. money, materials, human lives, etc.

Additionally, as war is being considered or conducted, nations have an obligation to vigorously pursue peace (which the Poet Dante calls the greatest of all human goods). (5:1)

From the beginning, then, it is apparent that essentially three considerations went into nations' desires for arms control--security, economics, and morality. Prior to World War I, disarmament and arms control doctrine placed its chief emphasis on the economic factor. Since that time, however, security (both domestic and international) has replaced the economic factor as the primary reason nations desire arms control. Of course, the intensity of their reliance on any one of these factors depends upon the perceived threat at a given point in time. For example, Isaiah spoke of "beating swords into plowshares" out of intense concern for the security of his small nation, Judah, and its perceived vulnerability to great empires. To further illustrate this point, fear of the deadly crossbow prompted the Second Vatican Council to issue an edict (on moral grounds) against its use in 1139. (4:10)

Historically, one of these themes (or combinations of them) has been directly or indirectly proffered as the reason arms control efforts were undertaken. Each of them will be briefly discussed beginning with security.

The Security Objective

The foremost argument for arms control is that arms races or certain kinds of weapons automatically create hostility among nations. It follows that large numbers of armaments inevitably

lead to war and arms control will prevent it. (3:3) There may be instances when this argument has merit. However, when it is considered within the political realities of the world arena, it loses some of its validity.

In the international arena, the military and politics are inextricably linked--one affects the other. Of course, arms control efforts usually get caught in the middle. Interestingly, there is a school of thought (although it is a controversial one) which asserts that the potential for peace is enhanced by arms control. The origin of World War II is an example. Individuals who belong to this school of thought believe that if Britain, France and the Soviet Union had engaged in an arms race with Germany, the war would never have occurred. (3:7) In other words, these countries did little to counter Germany's rearmament efforts. Still, arms control efforts can be undertaken inspite of political differences.

In fact, arms control among nations is meaningful only when they have conflicts, e.g. opposing economic and political systems, clashes between vital interests on the international scene, etc. Moreover, there seems to be a close correlation between the political environment at a given point in time among respective states and the outcome of arms control efforts. Consequently, arms races as well as arms control are intimately tied to politics; are born and reared as a result of political conflicts; and as such, can only be solved after these conflicts are resolved. (3:7-8)

Ultimately, then, international security is more likely to be preserved most often by a stable political environment. All other considerations, including arms control, are less important.

The Economic Objective

The economic effects of arms control (particularly in capitalist societies) are unclear. It is probably the least understood of the disarmament objectives discussed here. Consequently, no one really knows whether arms control would have beneficial or detrimental effects on a nation's economy. Still, inferences have been made from the limited knowledge which does exist. Essentially, there are two assertions made about the economic impact of arms control--it is either beneficial or detrimental.

Some individuals claim that arms control will be economically beneficial--it will save money. They assert that the money saved by disarming will be virtually proportional to that which is spent on armaments. If this were true, the results indeed could be substantial. For example, the United States federal budget (government spending) could be reduced significantly. The proposed budget for fiscal year 1986 is \$934 billion, and earmarks \$313 billion for defense (about one-third of the total budget). (17:22; 23:6f) If arms control resulted in reduced defense spending, the implications could be enormous. The potential fallout would be felt throughout the economy.

Taxes could be reduced because the government would need less money to operate. This, in turn, would stimulate economic growth,

reduce or even eliminate deficits, and enhance prospects for balanced federal budgets. Most of all, though, this "extra" money could be used to aid state and local governments; build and repair the nation's highway system; stimulate business and private investment; provide low interest loans for education and farming, etc. However, close attention to the nation's monetary policy is needed to avoid the potential pitfalls which could arise during the transition from "arming" to "disarming," particularly if the process occurs rapidly. (10:120,125-126) Of course, there are individuals on the other side of this issue.

They assert that arms control could actually be more expensive than an arms race. The sophisticated technology which often goes into producing weapons also must be incorporated into verification (a requirement for arms control which is discussed later in this chapter) and detection systems to make them effective. This is particularly true when monitoring compliance with agreements between nations with open and closed (secret) societies, e.g. the United States and the Soviet Union. The secrecy surrounding communist societies virtually ensures that verification systems must be both complex and costly. For instance, improved (and expensive) radar, satellite, and other detection and warning (intelligence) systems will be required. Additionally, there are a whole host of other negative consequences associated with arms control. They include: possible strangulation of the huge defense establishment which would result in the loss of thousands of jobs. Scientific and technological

research would be hurt. There is no doubt that developments such as these would have far reaching economic consequences--probably all detrimental. (10:121-122)

The fact remains, there can be no definite conclusions drawn concerning the economic effects of arms control. Most assertions about its impact are either theory or conjecture. This is true partly because research on this matter is limited, but more importantly, because the economic implications of arms control have not been tested. Throughout history, there simply has not been enough arms control experience from which to draw a conclusion.

The Moral Objective

Similar to security and economics, morality has been promoted as a reason for arms control. The basic thesis for the moral objective is simply that preparing for or threatening war is wrong. This view apparently is getting some powerful support today because of the proliferation of nuclear weapons. The widely publicized National Conference of Catholic Bishop's Draft Pastoral Letter, which redefines traditional Catholic teachings on nuclear issues, is a case in point. In this document, the moral tone was strong as reflected in one of the opening passages:

We would begin with an act of contrition. As American Christians, we are deeply penitent for the irresponsible use already of the atomic bomb. We are agreed that, whatever be one's judgement of the ethics of war in principle, the surprise bombings of Hiroshima and Nagasaki are morally indefensible... We have sinned grievously against the laws of God and the people of Japan. Without seeking to apportion blame among individuals, we are compelled to judge our chosen course inexcusable. (22:839)

One of the bishops, Joseph Cardinal Bernardin specifically stated that "... the nuclear issue is not simply political, but also a profoundly moral and religious question...." (22:827) Other prominent figures also have commented on this issue.

In a June, 1984, speech to the United Nations Special Session on Disarmament, President Reagan suggested that America carries a moral banner into battle. He said:

The record of history is clear: citizens of the United States resort to force reluctantly, and only when they must. We struggled to defend freedom and democracy. We were never the aggressors. America's strength and, yes, her military power have been a force for peace, not conquest; for democracy, not despotism; for freedom, not tyranny. (22:827)

While visiting Hiroshima in February, 1981, Pope John Paul II said:

In the past, it was possible to destroy a village, a town, a region, even a country. Now, it is the whole planet that has come under threat. This fact should fully compel everyone to face a basic moral consideration: from now on, it is only through a conscious choice and then deliberate policy that humanity can survive. (22:832)

History shows that the divergent views concerning the morals of war have flourished for centuries. It is easy for one to conclude that these views are espoused for different purposes (as the above quotes suggest) depending on who's talking. What must be recognized, however, is that all men and nations, for that matter, have moral qualities with tentacles which reach out into all areas of their respective societies and the world for that matter. Nations and individuals, therefore, don't have a monopoly on virtue, although they often think and behave as if they do. Moreover, no

one way of life is especially favored by God or history. (3:21)

When making judgments about the morality of war and military policy in general, a wide range of considerations must be made. But when it is all said and done, survival of the society (way of life) itself must be assured no matter what the costs or moral implications. If it takes nuclear weapons to achieve this end, then so be it. (3:22)

Even against this backdrop, though, the moral objective cannot be ignored. The moral judgments, such as those expressed in the Catholic Pastoral Letter, have become almost a natural part of the arms control process. Therefore, they must be considered in shaping arms control and disarmament policy--people in free societies demand it.

Thus far, the three principle objectives for arms control--security, economic, and moral--have been discussed. The remainder of the chapter will focus on the requirements for arms control.

Earlier, we concluded that arms control includes any agreement between two or more nations to regulate some aspect of their military capability or potential. One other element is also necessary because there must be some form of cooperation among the respective nations regarding their military programs. Now the question becomes, "Is such cooperation possible on a sustained basis between nations (e.g. the United States and the Soviet Union) whose international purposes and political systems are seemingly irreconcilably opposed to each other?" (2:43)

Hopefully, a review of the requirements will shed some light on this question.

REQUIREMENTS OF ARMS CONTROL

Without question, most attempts at arms control have failed. The two which are regarded as successes, in modern times at least, are the Rush-Bagot Agreement and the Washington Treaty for the Limitation of Naval Armaments. They only succeeded because political problems were resolved between the nations involved. So, arms control and politics go hand-in-hand. Nations' political differences must be settled and their security and well-being assured before meaningful arms control can be achieved. (1:4) Additionally, nations must develop a significant level of trust, achieve a "balance of forces," and allow for verification to insure compliance with arms control agreements.

Trust

One of the major obstacles to arms control has been, and continues to be the lack of trust among nations. A recent verbal exchange between United States Secretary of State, George Shultz, and Soviet Foreign Minister, Andrei Gromyko, provides an excellent example. The conversation took place in Geneva, Switzerland, during a January, 1985, planning meeting for arms control talks. Foreign Minister Gromyko, in response to a suggestion made by Secretary Shultz that the Soviets did not need an anti-ballistic missile (ABM) system, said:

He [Shultz] talked of Reagan's desire to 'create a shield to protect them the Americans from... the Soviet Union' but was reassured that the United States 'does not have the intention of striking a blow at the Soviet Union!' Therefore, Gromyko said he was told 'Moscow had no need for such an ABM system. Gromyko then said he asked Shultz, 'If we were to mentally trade places with you, the United States of America... If we were trying to create such an ABM system...would our corresponding statements that the Soviet Union had no intention of attacking the United States ...be sufficient for you?' The response, Gromyko said, was 'silence, silence.' (19:17)

In some instances, the reasons for the lack of trust may not be well founded; in others, they may be. The Soviets have demonstrated that they can't be trusted. Agreements made with them have to be "letter perfect." Otherwise, they eventually interpret them in their own self-serving manner. Their "bad faith" has been repeatedly demonstrated since World War II. (21:1) A disturbing fact is that distrust is not confined to the two superpowers. On the contrary, evidence suggests it is widespread. The Arab-Israeli conflict, the China-Soviet problem, and the Cuba-United States problem are examples of this fact. Until nations trust each other, arms control agreements will be difficult to achieve and sustain.

Balance of Forces

Arms control agreements require that forces of the respective nations be roughly equal. One can readily see that this represents virtually insurmountable obstacles. Often arms control involves considerations such as location, readiness posture and types of forces, quantity versus quality, facilities, throw weights, delivery systems, and a whole host of others.

Additionally, the process usually requires agreeing on some imaginary "value" for these issues in such a manner that each nation perceives it was treated fairly. The complexity of this problem alone almost guarantees that arms control efforts will be paralyzed. If nations perceive an agreement as unfair, they are bound to violate it sooner or later. (21:10) Additionally, with arms control, nations not only give up at least part of their ability to defend themselves, they also sacrifice their deterrent capability. That takes guts! "Right-minded" nations probably will never subject themselves to that kind of danger. (21:6) Consequently, arms control agreements without procedures for signatories to watch each other are bound to fail.

The Need for Verification

Arms control agreements require verification systems. This is a direct result of the lack of trust and suspicion among nations. (18:1) Verification is necessary to (1) protect signatories by ensuring all parties are abiding by the terms of the agreement and (2) to maintain the level of trust which resulted in the agreement in the first place. An agreement on verification can be as difficult to achieve as the arms control agreement itself.

Verification in "open societies" such as the United States probably would not be difficult. On the other hand, in closed societies such as the Soviet Union, it would be difficult indeed. Secrecy is the "life line" of closed societies' economic, political, and military systems. The Soviets, then, would almost have to dismantle the secrecy surrounding any weapon or weapons

which are involved in arms control agreements. Consequently, agreements between the two superpowers will require some degree of openness. (21:12-13) Otherwise, successful verification systems cannot be established, and arms control agreements cannot be achieved.

Indeed, all three requirements for arms control--trust, balance of forces, and the need for verification-- are essential for any successful arms control. However, trust seems to be the "magnet" that pulls the other two together. In today's world with 160 different nations--in effect, 160 different "personalities"-- distrust among them seems to be increasing. Although some of these nations are strong militarily and politically and some are not, all of them can potentially influence world events, particularly through their membership in the United Nations. (16:7A) This suggests that arms control efforts will continue to have "rough sailing."

Chapter Five

CONCLUSION

This paper has presented a definitive answer to the question, "Have the basic requirements of arms control changed since efforts were first made?" Based on the evidence, the answer to this question is an unequivocal, "No!" To varying degrees the basic requirements--trust, establishing a "balance of forces" to maintain an equality of forces, and verification to prevent cheating--have always been central elements in arms control efforts. Likewise, the obstacles to arms control also have not changed.

A January 8, 1985, article in the Atlanta Constitution supports the assertion that impediments to arms control will continue:

... arms control is useful in its own right... though frankly not so much because it makes the world "safer," one of the usual claims for it, nor because it reduces the risk of accidental war, another claim... Short of 'beating nukes into plowshares,' arms control serves only to set some arms race ground rules and to save a pile of money... Weapons only beget more weapons, not ultimate security. Security or something that can pass for it, can be found only in political wisdom. What is important between the two nations is an on-going, reasonably competent joint political management of their very real differences... to keep the planet going until 'the wise' come along. (20:16A)

The theme in this article points back to the age-old problem of lack of "trust" among nations which has successfully stifled

progress toward comprehensive arms control. As long as the world is comprised of "sovereign" nations, arms control agreements will be hard to come by. (1:103)

Sovereignty means nations have and reserve the right to protect and preserve their existence. Inherent in sovereignty is any nation's freedom to regulate its society, to compete and interact on the world stage, and if necessary, to go to war to protect its domestic and international interests. Most important of all, however, is the fact that sovereign nations simply do not gamble with their survival. (7:7)

Another obstacle to arms control involves territory. Many nations have not forgotten the territorial changes that have occurred throughout history. Those that lost territory want it back. A related thesis, "No territorial settlement can be permanent; change is necessary from time to time," was brought out in a paper written in 1916 (quoted by Headlam-Morley):

Any general limitation of armaments implies that every State accepts for itself a definite standard of force not to be exceeded. This standard cannot be equal for all. On what principle is it to be determined? None seems to be possible, except "the empirical method of accepting the present distribution of force as indicating the normal to be varied, if necessary, in such a manner as to preserve the same proportion between the different States." How can we expect all countries to accept a rule by which this existing proportion should be stereotyped and made permanent?

The existing proportionate distribution of force is the outcome of history, of past wars and territorial defeats, of national achievements and of national disasters. At every given moment there are States who hope to retrieve past errors and misfortunes, and who strive to build upon stronger foundations the power of their nation. Such ambitions are natural and just.

The nation that has them not is despised. To perpetuate indefinitely the conditions prevailing at a given time would mean not only that no State whose power has hitherto been weak relatively to others may hope to get stronger, but that a definite order or hierarchy must be recognized, in which each State is fated to occupy a fixed place. Is this a condition which can be expected to meet with general acceptance? (12:22)

This passage clearly suggests that past world events have put mechanisms in place which will almost ensure a permanently unstable world order. (24:14)

The competition between the United States and the Soviet Union provides clear evidence of this. This precarious relationship has prompted the United States, in official and unofficial positions, to speak of maintaining a force adequate to secure our national interests. The size of the force must depend upon the nature and extent of those interests. More than likely, the Soviet Union has similar feelings about their global interests. Because the positions of the two countries (which are the premier military and economic powers in the world today) are constantly clashing, any chances for arms control certainly look grim.

The parable of the animal's disarmament conference is indicative of the grim realities associated with arms control efforts in the past and provides some insight about future prospects. The animals, according to the story, having decided to disarm, convened in order to discuss the matter:

The eagle, with an eye on the bull, suggested that all horns be razed off. The bull, with a squint at the tiger, thought that all claws should be cut short. The tiger, glaring at the elephant, was of the opinion that tusks should be pulled out or at any rate shortened. The elephant, staring at the eagle, thought it indispensable that all wings should be clipped. Whereupon the bear, with a circular glance at all his brethren, cried out: 'Why all those half-way measures? Let all weapons be done away with so that nothing remains in the way of a fraternal, all embracing hug.' (9:14-15)

This parable is "right on target." Apparently, the bear is doing exactly what has always been a part of the arms control process. He is attempting to deceive the other participants into disarming while he retains one of his most potent weapons--the "bear hug." Additionally, the parable synthesizes the contents and findings in this paper and illustrates that, to some degree, arms control has become just another element of the arms race itself. Moreover, it supports my contention that, more and more, nations are simply using arms control to disguise their attempts to promote and even enhance their own selfish ambitions. This is precisely why arms control and disarmament probably will continue to amount to no more than recurring "fantasies in the minds of men."

BIBLIOGRAPHY

A. REFERENCES CITED

Books

1. Ansberry, William F. Arms Control and Disarmament: Success or Failure? Berkley, California: McCutchin Publishing Corp., 1969.
2. Brennan, Donald C. Arms Control, Disarmament, and National Security. New York, New York: George Brazillen, Inc., 1961.
3. Bull, Hedley. The Control of the Arms Race. New York, New York: Frederick A. Praeger, Publishers, 1965.
4. Dupuy, Trevor N. and Hammerman, Gay M. A Documentary History of Arms Control and Disarmament. New York, New York and Dunn Loring, Virginia: T.N. Dupuy Associates and R.R. Rowker Co., 1973.
5. Dougherty, James E. Arms Control and Disarmament: The Critical Issues. Washington, D.C., the Center for Strategic Studies, 1966.
6. Dougherty, James E. How To Think About Arms Control and Disarmament. New York, New York: Crane, Russak and Company, Inc., 1973.
7. Henkin, Louis. Disarmament. Dobbs Ferry, New York: Oceana Publishings, Inc., 1964.
8. Myrdal, Alva. The Game of Disarmament. New York, New York: Pantheon Books, 1976.
9. Nogee, Joseph L. and Spanier, John W. The Politics of Disarmament: A Study in Soviet-American Gamesmanship. New York, New York: Frederick A. Praeger, Publisher, 1962.
10. Shelling, Thomas C. and Halperin, Morton H. Strategy and Arms Control. New York, New York: The Twentieth Century Fund, Inc., 1961.

CONTINUED

11. Talbott, Strobe. Deadly Gambits: The Reagan Administration and the Stalemate in Nuclear Arms Control. New York, New York: Alfred A. Knopf, 1984.
12. Tate, Merze. The United States and Armaments. Cambridge, Massachusetts: Harvard University Press, 1948.
13. World Book Encyclopedia. "Disarmament." Vol. 5, Chicago, Illinois, 1983, p.179.

Articles and Periodicals

14. Baker, Philip Noel. "A Message for All Nations." Bulletin of Atomic Scientists, (May, 1978): p.9.
15. Crane, Brian. "Arms Control: A New Approach to Disarmament." Behind the Headlines, Vol. XXI, No. 5 (February, 1982): pp. 1-20.
16. "Ghandi Hosts an Anti-Nuclear Summit." The Atlanta Constitution, (January 28, 1985): p. 7A.
17. "High Hopes, Hard Choices." Time, (January 28, 1985): p.20-24.
18. Knickerbocker, Brad. "Verification Big Arms Control Hurdle." Christian Science Monitor, (December 4, 1984): p.1.
19. Pincus, Walter. "Star Wars Plan May Limit Future U.S. Treaty Options." The Atlanta Journal, (January 31, 1985): p. 17.
20. Teeper, Tom. "Taking a First Step in Geneva." The Atlanta Constitution, (January 8, 1985): p. 16A.
21. "The Key to Disarmament." England: Trade Union Labor, undated.

CONTINUED

22. Van Voorst, L. Bruce. "The Churches and Nuclear Deterrence." *Foreign Affairs*, (Spring 1983): pp. 827- 852.
23. Zuckert, Eugene M. "Looking Beyond the Defense Dollar Figures." *Current News*, (October 23, 1983): p. 64.

Unpublished Materials

24. Gray, Colin S. "Arms Control: Problems." Information Series No. 132, National Institute for Public Policy, (January 1983): p.14.
25. Hall, Betty Goetz and Sohn, Louis B. "Approaches to Arms Control and Disarmament." Twenty-fourth Report of the Commission to Study the Organization of Peace, United Nations, United Nations Plaza, (November 1976): p.1.

B. RELATED SOURCES

Books

Arms Control: A Survey and Appraisal of Multilateral Agreements. London: Taylor & Francis Ltd., 1978.

Arms Control: Issues for the Public. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1961.

Barnet, Richard J. Who Wants Disarmament?. Boston, Mass.: Beacon Press, 1960.

Bull, Hedley. The Control of the Arms Race: Disarmament and Arms Control in the Missile Age. New York, New York: Frederick A. Praeger, Publisher, 1961.

Clarke, Duncan L. Politics of Arms Control. New York, New York: The Free Press, 1979.

Courtney, Kent and Phoebe. Disarmament: A Blueprint for Surrender. New Orleans, Louisiana: Pelican Printing Company, 1963.

CONTINUED

Dallin, Alexander. The Soviet Union, Arms Control, and Disarmament: A Study of Soviet Attitudes. Columbia University, New York: School of International Affairs, 1964.

Dean, Arthur H. Test Ban and Disarmament: The Path of Negotiation. New York, New York: Harper and Row Publishers, 1966.

Hadley, Arthur T. The Nation's Safety and Arms Control. New York, New York: The Viking Press, Inc., 1961.

Lawrence, Robert M. Arms Control and Disarmament: Practice and Promise. Minneapolis, Minnesota: Burgess Publishing Company, 1973.

Long, Franklin A. and Rothjens, George W. Arms, Defense Policy, and Arms Control. New York, New York: W. W. Norton & Company, Inc., 1976.

Strategic Disarmament, Verification and National Security. London, England: Taylor & Francis Ltd, 1977.

Tate, Merze. The Disarmament Illusion: The Movement for a Limitation of Armaments to 1907. New York, New York: The MacMillian Company, 1942.

Warburg, James P. Disarmament: The Challenge of the Nineteen Sixties. Garden City, New York: Doubleday & Company, 1961.

Articles and Periodicals

"Assembly Urges End to Arms Race; Adopts 25 Resolutions." U.N. Chronicle, Vol. XIII, No. 1 (January, 1976), pp. 26-29.

Finklestein, Lawrence S. "Defense, Disarmament and World Order." Behind the Headlines, Vol XII (September, 1980), p.3.

CONTINUED

Gwertzman, Bernard. "Two Senators Press Reagan on Arms." New York Times, (December 4, 1984), p. 1.

Kayston, J. E. "The Nature of the Disarmament Problem." Behind the Headlines, Vol. XXI (June, 1961), pp. 14-22.

McWilliam, Rita. "House Democrats Divided on New Arms Control Panel." The Washington Times, (December 4, 1984), p. 6.

"Question of How Disarmament Could Be Achieved Debated at Non-governmental Organizations Conference." U.N. Chronicle, Vol. XIII, No. 5 (May, 1976), p. 37.

Sigal, Leon V. "Keenan's Cuts." Foreign Policy, No. 44, (Fall 1981), pp. 70-81.

"Suspended Conversations." Time, (October 1, 1984), p. 18.

Wohlstetter, Albert. "Morality and Deterrence." Commentary, Vol. 76, No. 6, (December, 1983), pp. 4-8.

Unpublished Materials

Dizard, Wilson P. "Propaganda Objectives for an Arms Control Period." MIT Center for International Studies Arms Control Project, November 15, 1963.